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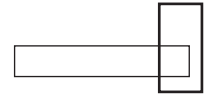
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The Behavioral Economics of Education: New Directions for Research

Huriya Jabbar

Over the past several decades, researchers have used economics to understand a number of issues in education policy. This article argues that some education researchers have defined economics too narrowly, neglecting several areas of economics research that cut across disciplinary boundaries. One subdiscipline of economics that might be of use in education, but which has not been applied much to it, is behavioral economics, which incorporates psychological knowledge about human behavior to enhance and extend economic models of decision making. This article reviews some of the behavioral concepts in economics that are most likely to inform education research and policy—prospect theory, framing effects, status quo bias, paradox of choice, and intrinsic motivation—and suggests directions for further research.

Keywords: decision making; economics of education; educational policy; psychology

Over the past three decades, researchers have used the economics of education to analyze many important issues, such as the relationship between education and economic growth (e.g., Cohn & Geske, 1990; Psacharopoulos, 1994), the workings of teacher labor markets (e.g., Loeb & Reininger, 2004), and the effects of financial resources in public schools and universities (e.g., Grubb, 2009; Hanushek, 1989; Levin, 1989). Economists have played central roles in policy evaluation, and economic concepts underlie many controversial policy proposals for schools, including choice and charter schools. Yet some education researchers have been dissatisfied with the contributions of economic theory to their field, either because of their concern with the outsized influence of economics on policy or because they believe that economic theories are too divorced from the real experiences of students, teachers, and schools. Although economists, and their evaluation methods in particular, have been valued by education policy makers—and many of the top education policy journals—they have been undervalued by education researchers from other disciplinary backgrounds, many of whom have concerns about the assumptions and methods of economics. More than 20 years after Levin's (1989) review of economics in *Educational Researcher*, the field is no longer

"exotic" (p. 13), but it is still often seen as "arcane, and outside of the mainstream of what is normally viewed as educational research" (p. 13). These views reveal a fundamental misunderstanding of some of the potential contributions of economics to education research.

Historically, economics has had deep foundations in philosophy and a considerable amount of intellectual diversity. The subject once aspired to be a "worldly philosophy" (Heilbroner, 1999), emphasizing the political and social issues central to economies from many different viewpoints. Today, economics continues to encompass a range of thinkers. In light of the 2008 financial crisis, which has called into question some of the underpinnings of their field, economists have advocated more strongly for the use of sociological and psychological concepts in economics research, as evidenced by the American Economics Association's 2011 "Grand Challenge" white papers, written by leading economists to identify the most important and innovative areas of potential social and behavioral research. Economists working in the interdisciplinary field of education policy might also enrich their investigations by reintroducing sociological, political, and psychological elements, following the larger trend in the discipline. Behavioral economics, a relatively new and provocative field that incorporates the psychological aspects of human behavior, holds great potential to advance our understanding of key educational issues. After providing a brief overview of this subject, I will discuss two policy cases—student decision making about higher education and teacher performance pay—as examples of the potential applications of behavioral economics to education research. I will then point to several other areas in which the fields might overlap.

A Brief Introduction to Behavioral Economics

A key assumption of most economic models is *unbounded rationality*, or the idea that people know their preferences and are able to evaluate their options completely, even for goods and services that they have never experienced. When economists analyze decisions, people are assumed to be capable of performing complex mental calculations involving time preferences, probabilities, and the expected utility of the outcomes. Behavioral economists, however, suggest that our preferences are not always consistent or well defined (Camerer & Loewenstein, 2004); choices often depend on their contexts or on how they are framed. Unsurprisingly, people often resort to intuitive reasoning based on "rules of thumb" to save time and energy in making

Table 1
Concepts in Behavioral Economics

Concept	Brief Definition
Prospect theory	People behave differently when faced with probable gains as opposed to probable losses in uncertain situations
Framing effects	The presentation and context of choices influence decision making
Status quo bias	People tend to prefer the status quo, even when more attractive options are available
Paradox of choice	A large menu of options can cause consumers to behave strangely
Intrinsic motivation	Internal drive or interest motivates people in addition to extrinsic or external rewards

assessments. These mental shortcuts may be considered rational or efficient; relying on previous experience or intuition can lead to optimal decisions in certain situations (Mullainathan & Thaler, 2000).

Economists know that people are not perfectly rational. But the abstractions of economics have been useful for analysis and modeling; they often have generated accurate predictions despite unrealistic assumptions (Friedman, 1953). Education researchers also know that students and teachers are not rational actors; researchers therefore have drawn on Simon's (1955) and others' conceptions of the cognitive constraints on decision making as alternatives to rational choice theory. But behavioral economists have begun to create more psychologically realistic models (Kahneman, 2003) that sacrifice some of the simplicity but not the rigor. Behavioral economists are not interested simply in proving that humans are irrational or sometimes unselfish; behavioral economists also try to reveal patterns in these deviations from rationality to create a "map of bounded rationality" (Kahneman, 2003, p. 1449). Behavioral economists have conducted experiments, usually in controlled laboratory settings, that increasingly have led to field experiments to test their new hypotheses.

The Broad Scope of the Field

Although most of the early applications of behavioral economics concentrated on bounded rationality, behavioral economists increasingly have targeted the other assumptions of consumer behavior models as well, including unbounded self-interest and unbounded self-control. A few examples will help to demonstrate the broad scope of the field. Behavioral labor economists have studied the role of fairness, rather than self-interest, in collective bargaining agreements and labor markets (Kaufman, 1999). Other researchers have studied overconfidence and naiveté about future self-control, such as when people procrastinate (Ariely & Wertenbroch, 2002; O'Donoghue & Rabin, 1999) or "pay not to go to the gym" by purchasing long-term memberships that they underuse (DellaVigna & Malmendier, 2006). Such work has led some economists to support "cooling-off" periods during which consumers are either forced to wait a few days to finalize large purchases or allowed to reverse their decisions (Camerer,

Issacharoff, Loewenstein, O'Donoghue, & Rabin, 2003). Researchers have also considered the roles of altruism, mood, and peer pressure in economic behavior. One field experiment involving door-to-door solicitations found that social pressure influenced charitable giving (DellaVigna, List, & Malmendier, 2009). Others have studied consumer attention (and inattention) to prices, taxes, and the media. For example, Chetty, Looney, and Kroft's (2009) field experiment displayed prices at a supermarket both with and without taxes; the researchers found that when tax-inclusive prices were displayed, consumer demand fell by approximately the amount of the tax, suggesting that buyers were otherwise inattentive to less salient taxes. Consumers can be just as inattentive to less salient prices, such as shipping costs on eBay (Hossain & Morgan, 2006). DellaVigna and Kaplan (2006) further examined the persuasive power of Fox News, which convinced anywhere from 3% to 28% of its viewers to vote Republican from 1996 to 2000. Although behavioral economics has rarely been applied so fruitfully to issues in education, there have been a few noteworthy studies, some of which are discussed in this article, with suggestions for further applications. These examples are not meant to be exhaustive; they simply illustrate the scope and innovative applications of behavioral research. For comprehensive reviews of the behavioral economics literature, see Camerer and Loewenstein (2004), DellaVigna (2007), and Rabin (1998).

Concepts in Behavioral Economics

Behavioral economics is a burgeoning field that encompasses a broad range of theories and concepts and does not yet have well-defined boundaries. I emphasize five concepts from behavioral economics, selected because they are the most instructive for the educational issues that I discuss further on. Table 1 provides brief definitions of these five concepts: *prospect theory*, *framing effects*, *status quo bias*, *paradox of choice*, and *intrinsic motivation*. After detailing these ideas, I apply them to a few issues in education.

Prospect theory. Prospect theory (Kahneman & Tversky, 1979) extends expected utility theory, an idea central to economics, to explain the variety of decisions that people make in uncertain situations. Expected utility theory explains decision making as a straightforward calculation of the utility that a consumer receives from a potential outcome and the probability of this outcome relative to all other possibilities. When people are faced with uncertainty, they are generally risk averse, preferring certain outcomes to risky ones. According to prospect theory and behavioral economics, however, people are not simply risk averse; they are usually risk averse when a choice will result in probable gains, and they are usually risk seeking when the result will be a loss relative to their starting point.

Prospect theory has also shown that decision makers tend to prefer certain gains over probable gains, even when the expected utility from taking the gamble is higher than that of the certain outcome. People prefer probable losses to certain losses, and when facing these alternatives they are more likely to take risks. Through laboratory experiments, behavioral economists have shown that people facing uncertainty do not behave according to the expected utility model, even when given adequate information about risk (Kahneman & Tversky, 1979). Furthermore, international

experiments using real gains and losses have generally supported these findings. In one study, researchers presented 452 participants with a number of two-outcome lotteries, half of which were framed to fall in the “gain domain” and half in the “loss domain.” They found that approximately 80% of participants followed the prospect theory framework when selecting between the two choices, whereas only 20% behaved as expected utility maximizers (Bruhin, Fehr-Duda, & Epper, 2010). Prospect theory thus highlights the heterogeneity of risk preference.

Framing effects. The context in which a choice is presented can influence the outcome, as prospect theory shows, and framing can change a person’s decision even when two choices are otherwise equivalent. For ease of analysis, standard economic models assume that people make the same decisions regardless of context and that their preferences are consistent regardless of how decisions are framed. Empirical work, however, has led economists to reconsider the role of framing in economic behavior. Kahneman (2003) presents the popular Avian flu example, in which respondents in an experiment were presented with two scenarios: “If Program A is adopted, 200 people will be saved. If Program B is adopted, there is a one-third probability that 600 people will be saved and a two-thirds probability that no people will be saved” (p. 1458). Although the expected number of people saved is constant, a majority of respondents selected Program A, indicating that they were risk averse. But researchers found very different results when they presented the respondents with a second, equivalent scenario: “If Program A is adopted, 400 people will die. If Program B is adopted, there is a one-third probability that no one will die and a two-thirds probability that 600 people will die” (p. 1458). Most respondents in this scenario selected Program B, the riskier option. The same group of people who behaved as though they were risk averse in the first scenario, when the decision was presented as a probable gain, became risk seeking in the second scenario, when the decision was presented as a probable loss. Framing has also been used to show how taxpayer attitudes change when a tax is described as a reduced gain rather than a financial loss (Chang, Nichols, & Schultz, 1987).

Other empirical studies have shown different outcomes when choices are “narrowly bracketed,” that is, considered individually, as opposed to when they are “broadly bracketed,” or considered simultaneously (Rabin & Weizsäcker, 2007; Read, Loewenstein, & Rabin, 1999). For example, Camerer, Babcock, Loewenstein, and Thaler (1997) found that taxi drivers quit early on busy days and worked longer on slow days, which suggests that the drivers evaluated their earnings each day rather than considering their potential earnings over longer periods. Drivers in the study could have earned 10% to 20% more by working the same number of hours each day or by working more hours on busy days and fewer hours on slow days. Finally, a meta-analysis of 136 empirical studies found small to moderate effect sizes for framing conditions in choices that involved risk. The results helped the authors conclude that framing is a reliable phenomenon in economics (Kühberger, 1998).

Status quo bias and the paradox of choice. Much of the work in behavioral economics is intended to explain status quo bias: when people prefer the most familiar option, even when better ones are available, because of high stakes, procrastination,

present-biased preferences, or the quantity of options (Madrian & Shea, 2000; O’Donoghue & Rabin, 1999, 2001). This last explanation is also known as the *paradox of choice*, or the idea that a large set of options can lead consumers to diversify excessively, to avoid a choice altogether, or to choose the status quo (Benartzi & Thaler, 2000; DellaVigna, 2007). Empirical work has shown, for example, that retirement plans with fewer options actually increase participation (Choi, Laibson, & Madrian, 2011) and that larger choice sets appear to bias enrollment toward particular types of retirement funds (Iyengar & Kamenica, 2010). How a person is enrolled in a plan should not affect his or her decision-making process, but in one study, changing the design of a 401(k) plan from one where employees must opt-in to one where they are automatically enrolled and allowed to opt-out increased rates of enrollment from 49% to 86% (Thaler & Benartzi, 2004). The Pension Plan Act of 2006 translated these findings into policy to help Americans save more for retirement. Status quo bias has also been applied to explain why some public health and poverty services are underused (Bertrand, Mullainathan, & Shafir, 2004).

Intrinsic motivation. Motivation in economics typically has been understood as a part of the principal–agent problem, that is, how incomplete or asymmetric information requires the employer (principal) to monitor and motivate the employee (agent) to ensure that their interests align. Economists have often proposed financial incentives to address this problem, but research has suggested that without careful design these incentive plans can sometimes have negative consequences. Behavioral economists emphasize that people adhere to at least two different sets of norms, the social and the market. Social norms include favors that people ask of friends and family. These favors are typically reciprocated, although not immediately, and they do not involve payment (Heyman & Ariely, 2004). Market norms are the rules people follow when either working for wages or purchasing goods or services. Payment is always expected in such an instance and typically is made immediately after the goods or services have been provided. Recently, economists studying the psychology of social norms and incentives have reemphasized intrinsic motivation, which was initially highlighted by psychologists in the 1970s (Deci, 1972, 1985; Lepper & Greene, 1975). Behavioral economists have argued that when policy makers use financial incentives to motivate people who are already intrinsically motivated, they push market norms into the realm of social norms (Ariely, 2009) and can “crowd out” intrinsic drive.

Whether incentives are actually the cause of negative unintended results is debated in the literature (e.g., Cameron & Pierce, 1994, 1996), but several models have described how extrinsic rewards may improve performance at the expense of intrinsic motivation (Camerer, Loewenstein, & Rabin, 2004; Frey, 1997; Kreps, 1997). One study looked at the effects of imposing a fine on latecomers at a day care center (Gneezy & Rustichini, 2000). Once the parents were no longer intrinsically motivated or bound by guilt or other social norms, they began to arrive late more often, viewing late pickups as a service that they could purchase. Furthermore, even when the center removed the fines, parents continued to arrive late, suggesting that merely experimenting with these types of incentives can sometimes have lasting negative effects.

Bounded Rationality in Education

In the previous section, I outlined a few behavioral economic concepts and how they have been applied to fields other than education. In this section, I discuss how to apply these ideas to two important educational issues—decision making about higher education and performance pay for teachers—before pointing to other areas for future research.

Decision Making About Higher Education

Students' decisions about college are not well understood. As policy makers respond to pressure from advocates and international competitors to increase college attendance and completion rates, understanding how students make enrollment and completion decisions becomes critical. Attending college often involves risk and high stakes, owing to the uncertainty of returns on the investment. Economists typically have relied on theories of rational choice, human capital, and expected value to explain the decisions of these "adolescent econometricians," who evaluate the complex probabilities, costs, and benefits of college attendance (Manski, 1993). Various sociological critiques have shown how race and class influence student decision making and how these group dynamics account for differences in predictions of college costs and labor market benefits (e.g., Beattie, 2002; Grodsky & Jones, 2007). As described below, behavioral concepts that recently have been applied in this area have helped to illuminate the role of information complexity and inertia in student behavior.

Prospect theory, framing, and college-going behavior. Researchers studying college access have called for work on the role of aspirations, information, and social factors in college decisions (Long, 2007). Because prospect theory and framing show how context affects which choices are made, they are useful for analyzing the decisions that real students make about higher education. In one experimental design, Page, Levy Garboua, and Montmarquette (2007) found that high and low reference points affected whether participants chose to continue through three levels of tasks. The authors connected these findings to education by arguing that students whose parents have a high school education may view that as their reference point, with the result that college would exist in their "gain domain"; in contrast, college would be in the "loss domain" for students whose parents are college graduates. If parental education levels influence student aspirations, first-generation college applicants might be more risk averse than others because of their lower reference points, and they may be less likely to attend college for that reason.

Another major factor that inhibits college attendance is its certain costs contrasted with its probable gains. Some researchers have suggested that improving the information available to high school students on the costs and benefits of colleges could remedy this uncertainty. For instance, low-income students and parents of color tend to overestimate the costs of attending college and make larger errors in their estimates than middle-class or White parents do (Grodsky & Jones, 2007), while also underestimating the benefits of college (Mundel, 2008). Better-targeted information on the true costs and benefits of higher education can help, but information alone is not likely to be sufficient. Behavioral economists have shown that the *complexity*, not just the lack or asymmetry, of information can result in poor decision

making (Hastings, Van Weelden, & Weinstein, 2007). Research in this area could also benefit from greater attention to the frames and behavioral aspects of student decision making, including risk perceptions and preferences, as well as the formal and informal social networks—often segregated by race and class—in which such information is shared and decisions are made (Goldrick-Rab, Harris, & Trostel, 2009; Grodsky & Jones, 2007).

Revamping the FAFSA. Many people have argued that the complex FAFSA (Free Application for Federal Student Aid) form discourages students from applying for aid, especially low-income students or those whose parents are unable to assist them because of a language mismatch. Experimental studies incorporating behavioral economics have confirmed the high costs of FAFSA's complexity (Bettinger, Long, Oreopoulos, & Sanbonmatsu, 2009; Dynarski & Scott-Clayton, 2006). This research has shown how seemingly minor hurdles, such as tracking down information on family income, can prohibit students from applying for aid, especially if attending college is not the status quo option. Recently, these studies have influenced the Obama administration's efforts to simplify the FAFSA (Executive Office of the President, Council of Economic Advisors, & National Economic Council, 2009).

Status quo bias and attending college. Status quo bias is also useful for understanding the behavior of high school students who are contemplating college. A study of low-income seniors in a Boston high school found that students often did not actively decide against applying to college; many students failed to enroll because of a series of missed deadlines, lack of a required course, or some other minor hurdle (Avery & Kane, 2004). College was simply not the default option for low-income students as it was for high-income students. In one study, a school attempted to overcome status quo bias by requiring high school seniors to complete at least one application to a community college (Thaler & Sunstein, 2008). The school's policy, in conjunction with other efforts, immediately increased the percentage of students who enrolled in college by 11%.

In community colleges, Scott-Clayton (2011b) has found that *choice architecture*—the menu and structure of choices—may create a paradox of choice. The large number of options and the lack of structure in how they are presented by many community colleges may force students to navigate "a shapeless river on a dark night" (p. 2), thus affecting student persistence. Scott-Clayton (2011a) has also examined whether financial incentives for students may operate through a mechanism related to status quo bias. The PROMISE program in the school that Scott-Clayton studied gave financial assistance to students who enrolled in a minimum number of units, which amounted to a full load. By defining the minimum number of units, the incentive helped to change the default option for these students. Further behavioral research is needed to understand the various mechanisms through which financial aid, incentive, and college-prep programs work, as well as how students navigate different choice architectures.

Teacher Motivation and Performance-Based Pay

The delineation made by behavioral economists between intrinsic and extrinsic rewards is relevant to current debates about how to motivate teachers. Although financial incentives have a long

and complicated history (Murnane & Cohen, 1986), they have received renewed attention from policy makers. The Obama administration has made it a priority in education reform to tie teacher salaries to student achievement, leading to debates over how best to evaluate and compensate teachers and whether we are technically capable of measuring a teacher's influence on student achievement (e.g., Baker et al., 2010; Harris, 2011; Rothstein, 2009; Rubin, Stuart, & Zanutto, 2004). The latest experimental and observational studies in the United States have found little or no effect of teacher incentives on student achievement (e.g., Marsh et al., 2011; Springer et al., 2010; Wiley, Spindler, & Subert, 2010).

Unintended results of incentive pay. Economists studying other incentive programs have come to mixed conclusions about their effectiveness, but at least one general consensus emerges: For simple tasks, piece-rate incentives can be effective, but for multi-task jobs, more complex incentive systems are required. For example, Lazear (1996) has shown how the introduction of piece rates in a firm that installed windshields increased productivity. As others have noted, however, this finding may not be applicable to schools because of the nature of such work: "Unfortunately [or fortunately], not all jobs are as narrowly defined and easily monitored as windshield installation" (Gibbons, 1998, pp. 117–118). Gibbons (1998) has described how a worker may have to perform two tasks that are needed for the firm's welfare, but if only one is rewarded under an incentive plan, the employee might stop doing the other. As Campbell's (1976) "law" states, "The more any quantitative social indicator is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor" (p. 54).

Behavioral economics provides several frameworks to capture perverse outcomes hidden in incentive schemes, especially those that might be applied to education. Recent news stories have described several cases of alleged systematic cheating to show test score gains (Dewan, 2010; Gabriel, 2010; Gillum & Bello, 2011; Severson, 2011; Winerip, 2011), and historically, teachers have used a number of tactics to show artificial improvements on paper in response to financial incentives (Murnane & Cohen, 1986; Nelson, 1987). Such instances of gaming the system or narrowing tasks in education—that is, "teaching to the test"—although not representative of all teachers, require further investigation when teachers respond to incentive pay in unintended ways. Experimental designs that have seriously considered these aspects of incentives have been able to limit perverse outcomes. In India, Muralidharan and Sundararaman (2011) incorporated the risk of unintended consequences into their experimental design by, for example, making the payment a function of average improvement of all students, rather than including any cut points that might induce teachers to focus on students just below the threshold. The program, which created no adverse effects and led to significant student achievement gains, demonstrates how incentive designs that incorporate psychology can help to avoid unintended outcomes. Behavioral economists have gone even further, highlighting other unintended outcomes of incentive pay that are often neglected in the empirical literature. As described above, some experimenters have found that extrinsic rewards may crowd out the intrinsic motivation of workers. This problem is

especially acute in education because teachers are motivated at least in part by intrinsic or "psychic" rewards (Lortie, 1975). Evaluations of performance pay require research designs that can capture the psychology of incentives, including intrinsic drive.

Risk preference and fairness. Research in behavioral economics may contribute to the study of other labor market aspects of incentive pay for teachers. Incentive policies have been recommended to improve teachers' on-the-job performance and to attract superior candidates to the field, but some research has suggested that teachers generally are more risk averse than other professionals (Dohmen & Falk, 2010). Principles of psychology and sociology also might be applied to the study of teachers' preferences toward risk and job security to explore why such differences exist among professions. Behavioral labor economists, for example, have moved beyond neoclassical utility and wage explanations for why teachers join unions to explore the roles of fairness and respect (Kaufman, 1999). Theories of motivation and risk, and the unintended effects of incentives, not only are critical to informing new performance-pay designs but also may provide new frameworks with which to study the current programs.

Additional Areas for Research

Behavioral economics may contribute to other areas of education research, in addition to the examples already given. Concepts of bounded rationality already have been combined with ethnography, statistics, and case studies, for example, to examine parents' decisions about schools. This research has emphasized the differential constructions of choice sets (Bell, 2009), the centrality of race in these decisions (André-Bechely, 2005; Lankford & Wyckoff, 2005), and the moral complexity of choice (Wilson, 2011). And behavioral economists have examined how information complexity influences parents' decisions (Hastings et al., 2007). Greater integration of principles of sociology may enhance behavioral models of education. For example, the behavioral economists Akerlof and Kranton (2002) studied schools as social institutions in which identity, social categories, and stereotypes are important motivating factors for students. Behavioral macroeconomic approaches (Akerlof, 2002) that combine sociology and economics to examine the effects of income inequality may produce new strategies for researching how poverty influences schooling outcomes. Behavioral research on the psychology of the poor may further explain the cognitive constraints that poverty creates and how it affects decision making (Mullainathan, 2011). Framing effects, particularly those that involve taxpayers' perceptions, may inform research on public opinion about educational policies. Education researchers might draw from the psychological concepts of emotion, risk, and altruism, as well as social relations, networks, and power, in studying economic behavior.

Conclusion

Economists who study education have increasingly called for research that "delve[s] into the black box of the school" (Akerlof & Kranton, 2002, p. 1198). For many issues in the economics of education, conventional economics will be sufficient for the task. However, in areas such as student decision making and performance pay for teachers, behavioral economics provides new and useful concepts. Using psychology, behavioral researchers have pushed the

boundaries of economics in new and exciting directions, but their integration of sociology has only just begun. And although behavioral economists have used methods that are relatively new to their field—laboratory experiments, for example—they have stopped short of qualitative and mixed-methods approaches that could help uncover important economic mechanisms in education. Further work in these areas could lead to greater insight into economic behavior in schools.

Behavioral economics already aligns with the approaches and goals of many education researchers. Its concepts fit with mixed-methods and interdisciplinary work, and it has important implications for policy. Because policies that are informed by behavioral economics usually retain aspects of consumer choice and the market, they tend to have bipartisan appeal. And because they start from realistic assumptions about human behavior, these policies may be more likely to elicit the intended behavioral responses. No single disciplinary approach is sufficient to understanding the issues of education, but in areas of education research where traditional economic models have been insufficient, and where it is theoretically and practically important to study complex economic phenomena in ways that lead to testable hypotheses or generalizable findings, behavioral economics may offer new and insightful frameworks. Furthermore, if it is combined with other disciplinary approaches, such as economic sociology, anthropology, or political science, behavioral economics has the potential to contribute even more broadly to education research.

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